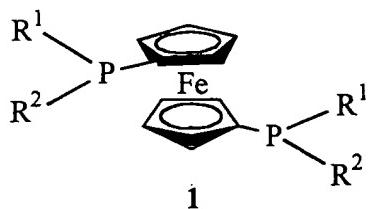


CLAIMS

1. A supported catalyst comprising a cationic rhodium(I) complex of the formula



wherein R¹ and R² are the same or different hydrocarbon groups of up to 30 C atoms, or

10 R¹ and R² are linked to form a ring, and a heterogeneous support medium that provides anionic binding sites.

2. The catalyst according to claim 1, wherein the support medium comprises a heteropolyacid anchoring agent.

3. The catalyst according to 2, wherein the heteropolyacid is of the Keggin type.

15 4. The catalyst according to claim 3, wherein the heteropolyacid is phosphotungstic acid, phosphomolybdic acid or silicotungstic acid.

5. The catalyst according to claim 4, wherein the heteropolyacid is phosphotungstic acid.

6. The catalyst according to any preceding claim, wherein the support medium

20 comprises an oxide selected from alumina, silica, titania, lanthana, zeolites and clays.

7. The catalyst according to claim 6, wherein the metal oxide is alumina.

8. The catalyst according to any preceding claim, wherein the support medium is a cation exchange resin containing sulphonic acid groups -SO₃⁻X⁺, wherein X⁺ is a proton or any other exchangeable cation.

25 9. The catalyst according to claim 8, wherein the cation exchange resin is a tetrafluoroethylene-perfluoro(vinyl ether sulfonate) copolymer.

10. The catalyst according to any preceding claim, wherein R¹ and R² are each an alkyl group.

11. The catalyst according to claim 10, wherein R¹ = R² = i-Pr.

30 12. Use of a catalyst according to any preceding claim, in a process of hydrogenating an aldehyde to produce the corresponding primary alcohol.

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The process

13. ^A Use according to claim 12, wherein substrate conversion of at least 90% is effected, and wherein the aldehyde also contains at least one sulfide group that is retained in the product.
14. ^A *The process* Use according to claim 12 or claim 13, wherein the process is carried out in a mixture of water and an alcohol.

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